AP/2126 IW

TRANSMITTAL FORM

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Total Number of Pages in This Submission	20

Application No.	09/468,614
Filing Date	December 21, 1999
First Named Inventor	Alok Sinha
Art Unit	2126
Examiner Name	Diem K. Cao
Attorney Docket Number	42390P7752

ENCLOSURES ***(check all that apply)***

- ☒ Fee Transmittal Form
  - ☒ Fee Attached
- ☐ Amendment / Response
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
  - ☐ PTO/SB/08
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Basic Filing Fee
  - ☐ Declaration/POA
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s)
- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☒ Appeal Communication to Group **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) *(please identify below):*

Check in the amount of $500.00

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Gregory D. Caldwell, Reg. No. 39,926 BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Signature	
Date	December 30, 2004

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I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Signature	RB	Date	**December 30, 2004**

Based on PTO/SB/21 (04-04) as modified by Blakely, Solokoff, Taylor & Zafman (wlr) 06/04/2004.
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FEE TRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT ($) 500.00

Complete if Known	
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METHOD OF PAYMENT *(check all that apply)*

☒ Check ☐ Credit card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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FEE CALCULATION

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
2053	130	2053	130	Non-English specification	
1251	120	2251	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1,020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1,080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	500.00
1403	1,000	2403	500	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
1809	790	1809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	

Other fee (specify) _____

SUBTOTAL (2) ($) 500.00

SUBMITTED BY Complete (if applicable)

Name (Print/Type)	Gregory D. Caldwell	Registration No. (Attorney/Agent)	39,926	Telephone	(503) 439-8778
Signature				Date	12/30/04

Based on PTO/SB/17 (12-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 12/15/2004.
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Sinha

Serial No.:	09/468,614	Group Art Unit:	2126
Filed:	December 21, 1999	Examiner:	Diem K. Cao

FOR: METHOD FOR COMMUNICATING OCCURRENCE OF EVENTS IN A STORAGE MEDIUM

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant (hereinafter Appellant) submits this appeal brief, thus perfecting the notice of appeal filed on November 1, 2004.

The required headings and subject matter follow.

(i) Real party in interest.

This case is assigned of record to Intel Corporation, who is the real party in interest.

(ii) Related appeals and interferences.

There are no known related appeals and/or interferences.

(iii) Status of claims.

Claims 1-10 and 13-28 are pending in the case and stand rejected. The rejections of claims 1-10 and 13-28 are being appealed.

(iv) Status of amendments.

No amendments were filed subsequent to the final rejection.

(v) Summary of claimed subject matter.

The below summary of claimed subject matter identifies possible implementations of certain claim elements by reference numerals and/or portions of the present application. Such identification by reference numerals and/or portions of the present application are merely to aid the reviewer in understanding the claimed subject mater and are not meant to limit the scope of the respectively claims. In other words, the scope of claims are broader than the specific elements identified below and therefore are attended to cover additional embodiments that fall within the spirit of the present invention.

Claim 1 relates to a method of indicating occurrence of an event to a management application 60 in a computing device 10 having an operating system module 50 to interface with a RAID device controller 30 that comprises an I/O processor (e.g., page 6, lines 21-22). The method comprises registering the management application 60 with an event application programming interface 55 (e.g., page 9, line 10 through page 10, line 11). The method further comprises detecting occurrence of an event of the I/O processor with a RAID monitor service 51 operating above the operating system module 50 that interfaces with the RAID device controller 30 (e.g., page 10, line 23 through page 11, line 4). The method also includes notifying the management application program 60 of the event via the event application programming interface 55 (e.g., page 11, lines 4-9).

Claim 10 relates to notifying an application 60 of the occurrence of a hardware event in a computing device 10 having an operating system module 50 to interface with a device 30. The method comprises registering the application 60 with a programming interface 55 (e.g., page 9, line 10 through page 10, line 11). The method further comprises detecting occurrence of the hardware event with a monitor service 51 that operates above the operating

system module 50 and that is separate from the programming interface 55 (e.g., page 9, line 10 through page 10, line 11). The method also comprises upon detecting occurrence of the hardware event, notifying the application 60 of the hardware event via the programming interface 55 (e.g., page 11, lines 4-9). The method also requires that registering the application 60 includes storing data identifying an input/output processor that monitors the device 30. (e.g. page 9, line 22-23).

Claim 17 relates to an article comprising a machine readable storage medium having stored thereon instructions capable of being executed by a data processing platform 10. (e.g. page 4, line 21 through page 5, lines 7). The instructions of the article cause the data processing platform 10 to register a management application 60 with a programming interface 55 so that the programming interface is capable of notifying the management application 60 of an event detected by a RAID monitor service 51 that operates above an operating system module 50 that interfaces with an I/O processor of a RAID device controller 30.

Claim 22 relates to an article comprising a processor 12, a medium for storing instructions (e.g. page 4, line 21 through page 5, lines 7), a medium for storing data (e.g. disk drive 35); and a module 50 to interface with an I/O processor that monitors the medium for storing data. Claim 22 further requires that instructions on the medium for storing instructions define a monitor service 51 adapted to cause the processor 12 to detect via the module 50 the occurrence of an event with the medium for storing data and to indicate the occurrence of the event to a management application 60.

Claim 26 relates to an apparatus comprising a processor 12, a RAID controller 30 comprising an I/O processor, and an operating system module 50 to interface with a RAID device (e.g. disk drive 35) via the I/O processor of the RAID controller 30. Further, the apparatus comprises a RAID monitor service 51 to detect events of the RAID device 35 via

the operating system module 50, an event programming interface 55, and a management application 60. The apparatus of claim 26 further requires the event programming interface 55 is adapted to notify the management application 60 of an event detected by the RAID monitor service 51.

(vi) Grounds of rejection to be reviewed on appeal.

I. Claims 1-7, 9-10, 13-17 and 19-28 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hinckley (U.S. Patent 5,828,882) in view of Corrington et al. (U.S. Patent 6,076,142) further in view of Devireddy et al. (U.S. Publication 2002/0133669 A1).

II. Claims 8 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hinckley in view of Corrington and Devireddy further in view Skarbo et al. (U.S. Patent 5,805,886).

(vii) Argument.

I. The rejection of claims 1-7, 9-10, 13-17 and 19-28 under 35 U.S.C. § 103(a) is improper for lack of a motivation to make the proposed combination of Hinckley, Corrington, and Devireddy and should be reversed.

The Appellant contends that the Official Action fails to provide a sufficient teaching, suggestion or motivation to combine the Hinckley, Corrington, and Devireddy references as proposed. Accordingly, a prima facie case of obviousness has not been established in regard to the inventions of Appellant's claims 1 7, 9-10, 13-17 and 19-28.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 347, 21 USPQ2d 1941 (Fed

Cir. 1992). The Office Action merely stated that it would be obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Corrington, Hinckley and Devireddy because it would provide "the user the option to check and correct the RAID system events" and cited Corrington column 2, lines 38-63 for support. However, Corrington and the identified teaching provides insufficient motivation to combine the references in the manner proposed by the Official Action. Corrington alone describes a system that provides "the user the option to check and correct the RAID system events." Accordingly, one skilled in the art based upon this minimal identified teaching would have no motivation to modify Corrington since Corrington already provides such capabilities.

Appellant wishes to point out that Appellant's claims 1-7, 9-10, 13-17 and 19-28 each claim a very specific interplay between a device, a module for the device, a service, an application, and an interface between the application and the service that is simply not taught or suggested by the cited references. Apparently, the Official Action is relying on Hinckley for a teaching of an event notification facility 100 with which a program 104 may register for event notifications. Even if that is accurate, Hinckley provides no teaching in regard to a large number of the remaining claim elements. In particular, Hinckley provides no teaching as to the device, the module, the service, and especially the interplay between the device, module and service.

The Official Action appears to look to Corrington and Devireddy for such teachings. However, Corrington and Devireddy are related to complete RAID monitoring systems and Hinckley is silent in regard to RAID. Accordingly, Appellant sees no reason why one skilled in the art would modify Corrington or Devireddy based upon the teachings of Hinckley. Appellant respectfully proffers that the only teaching to modify Corrington and Devireddy in the manner proposed by the Official Action is Appellant's own disclosure. Such hindsight piecemeal combining of features of the prior art based upon the Appellant's disclosure does

not provide a proper basis for an obviousness rejection under 35 U.S.C. 103(a). Appellant requests the rejection of claims 1-7, 9-10, 13-17 and 19-28 be reversed.

II. The rejection of claims 8 and 18 under 35 U.S.C. § 103(a) should be reversed since they depend from allowable claims.

Claim 8 depends from claim 1 and claim 18 depends from claim 17. As a result, each of claims 8 and 18 is allowable for at least one or more of the reasons stated above in regard to claims 1 and 17. Appellant respectfully requests the rejection of claims 8 and 18 be reversed.

CONCLUSION

In view of the foregoing, favorable reconsideration and reversal of the rejections is respectfully requested. Early notification of the same is earnestly solicited. If there are any questions regarding the present application, the Examiner and / or the Board is invited to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

December 30, 2004
Date

Gregory D. Caldwell
Reg. No. 39,926

CERTIFICATE OF MAILING
I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL WITH SUFFICIENT POSTAGE IN AN ENVELOPE ADDRESSED TO: MS APPEAL BRIEF -PATENTS, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313.
By: RJB 12/30/04 Date of Deposit: December 30, 2004
Rachael Brown Date

(viii) Claims appendix.

1 (Previously Presented): In a computing device having an operating system module to interface with a RAID device controller that comprises an I/O processor, a method of indicating occurrence of an event to a management application, comprising:

registering the management application with an event application programming interface;

detecting occurrence of an event of the I/O processor with a RAID monitor service operating above the operating system module that interfaces with the RAID device controller; and

notifying the management application program of the event via the event application programming interface.

2. (Original): The method of claim 1, further comprising updating the event application programming interface with the RAID monitor service upon occurrence of the event.

3. (Original): The method of claim 1, wherein registering the management application includes identifying a storage medium associated with the event.

4. (Original): The method of claim 1, wherein registering the management application includes identifying the type of event.

5. (Original): The method of claim 1, wherein registering the management application includes providing the event application programming interface with a callback function.

6. (Original): The method of claim 5, wherein the event application programming interface uses the callback function to notify the management application of the occurrence of the event.

7. (Original): The method of claim 1, wherein registering the management application includes creating an interprocess communication between the RAID monitor service and the management application.

8. (Original): The method of claim 1, further comprising the step of unregistering the management application with the event application programming interface upon notification of the event.

9 (Original): The method of claim 1, wherein the event application programming interface returns a callback function upon notification of the event.

10 (Previously Presented): In a computing device having an operating system module to interface with a device, a method for notifying an application of the occurrence of a hardware event comprising:

registering the application with a programming interface;

detecting occurrence of the hardware event with a monitor service that operates above the operating system module and that is separate from the programming interface; and

upon detecting occurrence of the hardware event, notifying the application of the hardware event via the programming interface,

wherein registering the application includes storing data identifying an input/output processor that monitors the device.

11-12 (Canceled).

13 (Previously Presented): The method of clam 10, wherein storing the data includes storing data identifying the hardware event that the programming interface notifies the application of once the hardware event has occurred.

14 (Previously Presented): The method of claim 10, wherein storing the data includes storing a hardware identification value that identifies a storage medium associated with the event.

15 (Original): The method of claim 10, further comprising notifying the programming interface of the occurrence of the hardware event with a RAID monitor service.

16 (Original): The method of claim 10, wherein notifying the application includes providing a callback function.

17 (Previously Presenting): An article comprising:

a machine readable storage medium having stored thereon instructions capable of being executed by a data processing platform, said instructions being adapted to register a management application with a programming interface so that the programming interface is capable of notifying the management application of an event detected by a RAID monitor

service that operates above an operating system module that interfaces with an I/O processor of a RAID device controller.

18 (Original): The machine readable storage medium of claim 17, wherein said instructions are further adapted to unregister the management application.

19 (Original): The machine readable storage medium of claim 17, wherein said instructions are further adapted to notify the management application of a hardware event.

20 (Original): The machine readable storage medium of claim 19, wherein the hardware event is selected from the group consisting of a disk drive failure, disk drive initialization, array migration, and data recovery.

21 (Original): The machine readable storage medium of claim 17, wherein said instructions are further adapted to register a processor identification value.

22 (Previously Presented): An article comprising:

a processor;

a medium for storing instructions;

a medium for storing data; and

a module to interface with an I/O processor that monitors the medium for storing data;

wherein instructions on the medium for storing instructions define a monitor service adapted to cause the processor to detect via the module the occurrence of an event with the medium for storing data and to indicate the occurrence of the event to a management application.

23 (Original): The article of claim 22, wherein the management application is selected from the group consisting of a desktop management program, a RAID system management application, and a RAID monitor application.

24 (Previously Presented): The article of claim 22, wherein the device medium for storing data comprises a RAID device and the monitor service comprises a RAID monitor service.

25 (Previously Presented): The article of claim 24, further comprising an intelligent input/output controller to interface with the RAID device, wherein the intelligent input/output controller comprises the I/O processor.

26 (Previously Presented): An apparatus comprising:

a processor;

a RAID controller comprising an I/O processor;

an operating system module to interface with a RAID device via the I/O processor of the RAID controller;

a RAID monitor service to detect events of the RAID device via the operating system module;

an event programming interface;

a management application, wherein the event programming interface is adapted to notify the management application of an event detected by the RAID monitor service.

27 (Original): The apparatus of claim 26, further comprising a storage medium, wherein the storage medium comprises instructions that cause the processor to register the management application with the event programming interface.

28 (Original): The apparatus of claim 27, wherein the storage medium further comprises instructions that cause the processor to provide the function of the event programming interface.

(ix) Evidence appendix.

None.

(x) Related proceedings appendix.

None.